

IN THE CLAIMS:

1. (Previously Presented) A photothermographic material comprising at least (a) a photosensitive silver halide, (b) a silver salt of an organic acid, (c) a reducing agent and (d) a hydrophobic and thermoplastic organic binder on a support; and (e) a heat-fusible solvent that is solid at an ordinary temperature and can be fused at a heat development temperature;

wherein a layer other than the image forming layer contains said heat-fusible solvent and said hydrophobic and thermoplastic organic binder; and

the heat-fusible solvent is selected from the group consisting of urea derivatives, amide derivatives, sulfonamide derivatives, polyhydric alcohols and polyethylene glycols.

2. (Previously Presented) A photothermographic material according to Claim 1, wherein the photothermographic material is produced through a step of coating and drying a coating solution containing a latex dispersed in water as the organic binder.

3. (Previously Presented) A photothermographic material according to Claim 1, wherein the photothermographic material further comprises a halogen-releasing precursor.

4. (Previously Presented) A photothermographic material according to Claim 1, wherein the photothermographic material further comprises an ultrahigh contrast agent.

5. (Previously Presented) A photothermographic material according to Claim 1, wherein the photothermographic material is produced through at least one step selected from a step of coating and drying a coating solution containing microparticles of the reducing agent solid-dispersed in water, a step of coating and drying a coating solution containing microparticles of an ultrahigh contrast agent solid-dispersed in water, and a step of coating and drying a coating solution containing microparticles of a halogen-releasing precursor solid-dispersed in water.

6. (Original) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is urea or a derivative thereof.

7. (Original) A photothermographic material according to Claim 6, wherein the heat-fusible solvent is selected from the group consisting of urea, dimethylurea, phenylurea, diethyleneurea, diisopropylurea, dimethoxyethylurea, tetramethylurea and tetraethylurea.

8. (Original) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is an amide derivative.

9. (Original) A photothermographic material according to Claim 8, wherein the heat-fusible solvent is selected from the group consisting of acetamide, stearyl amide, p-toluamide, p-propenoxyloxybenzamide, propionamide, butanamide, benzamide, diacetamide, acetanilide, ethylacetamide acetate, 2-chloropropionamide, phthalimide, succinimide and N,N-dimethylacetamide.

10. (Original) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is a sulfonamide derivative.

11. (Original) A photothermographic material according to Claim 10, wherein the heat-fusible solvent is selected from the group consisting of phenylsulfonamide, p-toluenesulfonamide, p-chlorophenylsulfonamide, o-aminophenylsulfonamide and 2-amino sulfonyl-5-chlorothiophene.

12. (Original) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is a polyhydric alcohol.

13. (Original) A photothermographic material according to Claim 12, wherein the heat-fusible solvent is selected from the group consisting of 1,6-hexanediol, pentaerythritol, D-sorbitol, dixylitol, 1,4-cyclohexanediol and 2,2'-dihydroxybenzophenone.

14. (Original) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is a polyethylene glycol.

15. (Original) A photothermographic material according to Claim 14, wherein the polyethylene glycol has a molecular weight of 100-100,000.

16. (Previously Presented) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is in an amount of 5-500 parts by weight per 100 parts by weight of the binder.

17. (Previously Presented) A photothermographic material according to Claim 16, wherein the heat-fusible solvent is in an amount of 10-300 parts by weight per 100 parts by weight of the binder.

18. (Previously Presented) A photothermographic material

according to Claim 1, wherein the heat-fusible solvent is in an image forming layer.

19. (Cancelled)

20. (Original) A photothermographic material according to Claim 1, wherein the hydrophobic and thermoplastic organic binder is selected from the group consisting of gelatins denatured to be hydrophobic, denatured poly(vinyl alcohols), cellulose acetates, cellulose acetate butyrates, poly(vinylpyrrolidones), poly(vinyl acetates), poly(vinyl chlorides), polyacrylates, poly(methyl methacrylates), copoly(styrene/maleic anhydrides), copoly(styrene/acrylonitriles), copoly(styrene/butadienes), poly(vinyl acetals), poly(esters), poly(urethanes), phenoxy resins, poly(vinylidene chlorides), poly(epoxides), poly(carbonates), poly(vinyl acetates) and poly(amides).

21. (Previously Presented) A photothermographic material according to Claim 1, wherein the heat-fusible solvent is present in at least one of a protective layer, an undercoat layer and an intermediate layer.

22. (NEW) A photothermographic material according to Claim 1,

wherein the heat fusible solvent is at least two solvents having different melting points.

23. (NEW) A photothermographic material according to Claim 1, wherein the heat fusible solvent is added as a microparticle having a mean particle size of 10 μm or less.